

# ENERGY EXPERT: ISSUES IN FOCUS

*A quarterly review of disputes and complex issues in the hydrocarbon production and processing industries.*

Baker & O'Brien, Inc.

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## Fertilizer Plant Makes a Stink About Gas Supply Shortages

### International Arbitration, South & Central America

By Aaron Imrie, P.E.

Ammonia is a key ingredient in many fertilizer products. The ammonia manufacturing process converts natural gas to hydrogen, which is chemically combined with nitrogen from air to form ammonia. A large ammonia plant consumes enough natural gas to heat 100,000 homes during a typical winter and depends upon a reliable supply of large volumes of natural gas. A natural gas supplier depends upon the ammonia producer to take delivery of the gas that it supplies.



Gas Supply Agreements (GSAs) establish commercial and technical conditions for the supply of natural gas. Common contract provisions include: technical parameters of gas quality, temperature, and pressure; contract quantities; contract price; a requirement for the buyer to pay for contract quantities it does not take; and a requirement for the seller to compensate the buyer for contract quantities that are not delivered.

A dispute developed between an ammonia producer and a gas supplier regarding the delivery of contract quantities of natural gas stipulated in a GSA. The ammonia producer claimed that the natural gas supplier curtailed deliveries, while the gas supplier claimed that the ammonia plant was unable to take its contract quantities due to planned and unplanned shutdowns. The GSA provided a clear method to determine take-or-pay damages, but provisions for determining damages related to supply curtailments relied upon the ammonia producer's contribution margin using generally accepted engineering calculations.

Baker & O'Brien was engaged to investigate claims made by the ammonia producer and the gas supplier. We reviewed historical operational records for the ammonia plant and natural gas supply to validate claims from both parties. We prepared an independent assessment of damages based upon the methodology set out in the GSA, which required an analysis of the ammonia plant's fixed and variable operating expenses and sustaining capital investment. Our findings were presented in an expert report that was submitted for settlement negotiations, leading to a resolution of the dispute.

## Force Majeure... or Not?

### Arbitration, North America

By Charles Kemp

Refineries and petrochemical plants on the Gulf Coast have procedures and plans that are put into action when hurricanes threaten. In one particular case, a hurricane was projected to make landfall in a specific Gulf Coast region. As the hurricane moved closer, refineries and petrochemical plants in the area implemented their hurricane preparation plans. The local port authority closed the port and ordered ships to evacuate.

Even with advances in modeling technology, predicting the path of a hurricane is still an inexact science. The hurricane ended up turning and causing minimal damage to the region.

Once the port reopened, a ship that had been scheduled to load product on the date of the projected hurricane landfall returned to the refinery that was under contract to deliver the product. The refinery had already declared force majeure on the original load date and now extended the force majeure claim for several more days before the

ship was finally loaded. This resulted in an economic loss known as demurrage.

Based on our experience in refinery operations, planning, and scheduling, Baker & O'Brien examined the reasonableness of the force majeure extension. Many factors could have caused the extension. For example, in areas prone to flooding, hurricane preparation procedures sometimes call for filling tanks so flood waters will not float them off their foundations, which will delay product availability. Also, if process units are shut down, it may take several days to produce specification product. On the other hand, force majeure claims typically have a finite period of time following the initial declaration. Therefore, it is prudent for counterparties to ensure that force majeure claims are valid.



## Refinery Fire Leads to Substantial Business Interruption Claim

### Insurance Claim, North America

By Dan Finelt



The first step in petroleum refining is the separation of the crude oil in the crude and vacuum distillation units. These distillation units separate the petroleum fractions of crude oil by boiling point and provide intermediate feedstocks to the downstream process units to maximize gasoline, jet, and diesel production. When a refinery suffers a loss of its crude or vacuum distillation units, depending upon the length of time involved, the refinery may be forced to reduce processing unit rates or even completely shut down once the intermediate feedstock inventory is depleted. Such an event occurred at a refinery as a result of a fire that caused a lengthy period of time in which the refinery was operated below historical and planned crude oil charge rates, leading to a substantial business interruption claim.

Baker & O'Brien was retained to calculate the business loss incurred from the refinery fire incident, including a detailed review of the forensic accounting reports. In calculating the business loss, Baker & O'Brien employed a plan (but for the incident occurring) versus the actual approach to quantify the lost production and resulting lost profits. Typically, a refinery prepares a rolling three-month operating plan that details the crude oil and feedstocks planned to be processed and the resulting products. These operating plans were used as the basis of what would have occurred "but for" the fire incident. Baker & O'Brien also reviewed and provided opinions of the alternative methodology used by the forensic accountant based on historical refinery performance for the "but for" case. In addition to the calculated lost profits, the additional mitigation expenses, such as distressed crude oil sales, increased transportation costs, and incremental product purchases to supply customers were evaluated.

Baker & O'Brien summarized its findings and opinions in a report, which was used during settlement negotiations.

## Consulting Support for Complex Commercial Disputes

When faced with complex commercial disputes in the energy-related industries, clients often turn to Baker & O'Brien for its independent and objective support. For over 20 years, the firm's consultants have employed their engineering knowledge, industry experiences, and commercial acumen to provide assistance on a wide range of matters. Our project experience includes disputes involving operational incidents, standards of care, asset valuation, commercial supply terms, product quality, large engineering and construction projects, and intellectual property.

Our clients include many of the world's largest law firms, insurance providers, and operating companies. Law firms rely upon Baker & O'Brien to evaluate

technical and commercial aspects of a case and provide expert testimony. Our analyses, conclusions, and expert testimony have been heard by judges, juries, and arbitration panels around the world. On insurance matters, clients rely upon Baker & O'Brien's assistance for investigation of industrial accidents and quantification of resultant property damage and business interruption losses. We are also called upon to assist insurers in subrogation actions by evaluating causation theories and claims for damages.

We welcome the opportunity to discuss our qualifications in more detail as they relate to your specific area of interest.

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